CARE05

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Welcome
to the 2nd Annual
CARE meeting
…and many thanks
to CERN for hosting
this event

1. Overview of CARE
2. Organization of the Meeting
3. CARE activities
4. Conclusion

as of yesterday 164 registered participants

CARE
Coordinated Accelerator Research in Europe

http://care.lal.in2p3.fr

The objective of CARE is to carry Accelerator Research

Within the 5 year CARE programme, the aim is

- **to develop accelerator critical components**
- **to have improved or be ready to improve existing infrastructures (i.e. better performance and reliability)**
- **to use these infrastructures to test news developments/ideas**
- **to provide, as a bonus, the technical basis for decisions on new infrastructures**

by integrating the European resources in a collaborative mode as we are used to do for detectors

Officially effective from January 1st , 2004

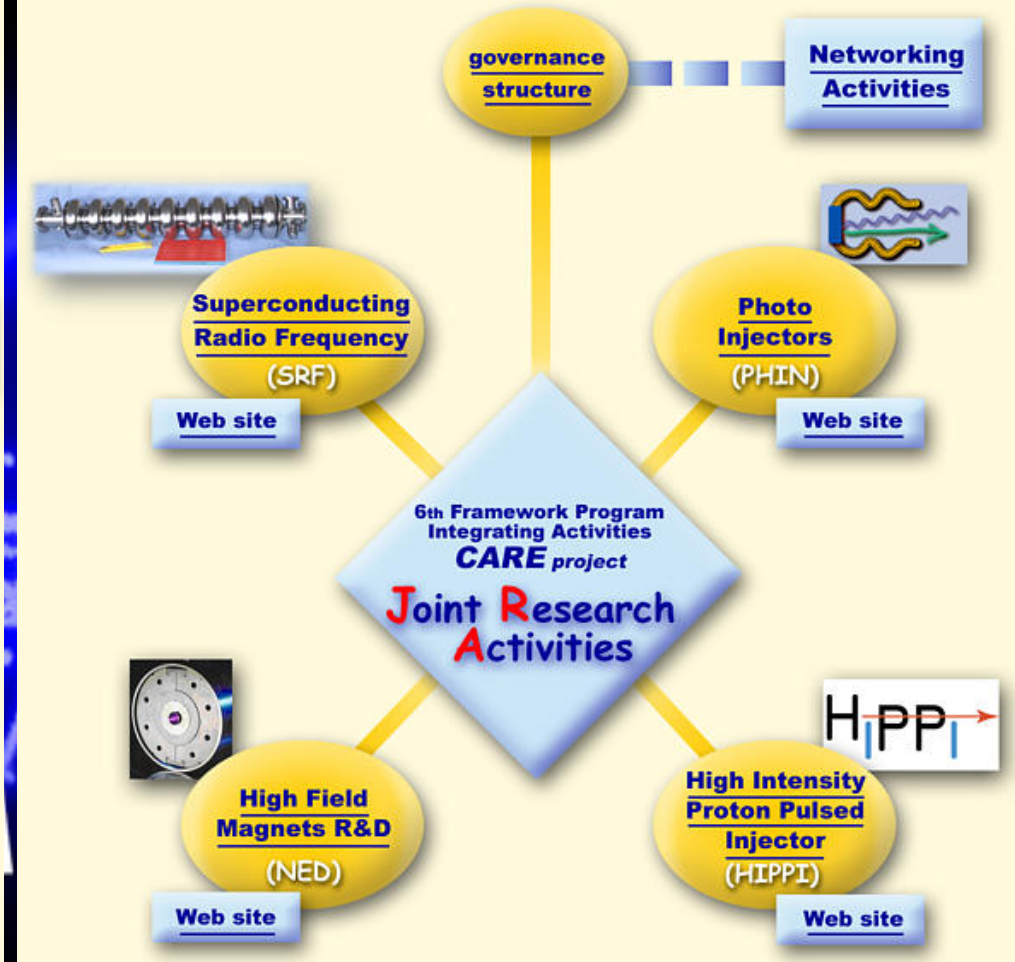
with 22 institutes from 9 countries having signed the EU contract

…and many (58) associates

CARE includes

3 Networks

4 Joint Research Activities

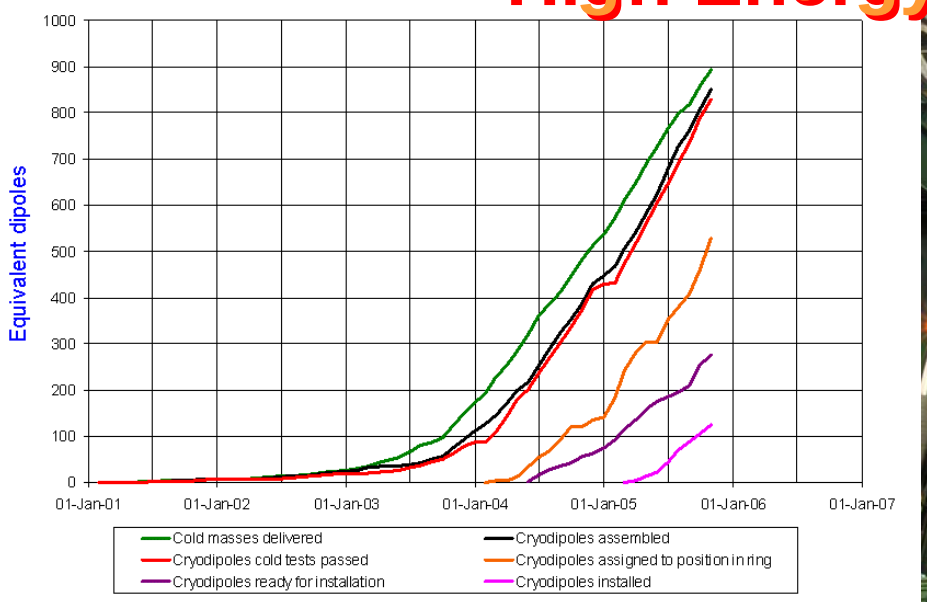


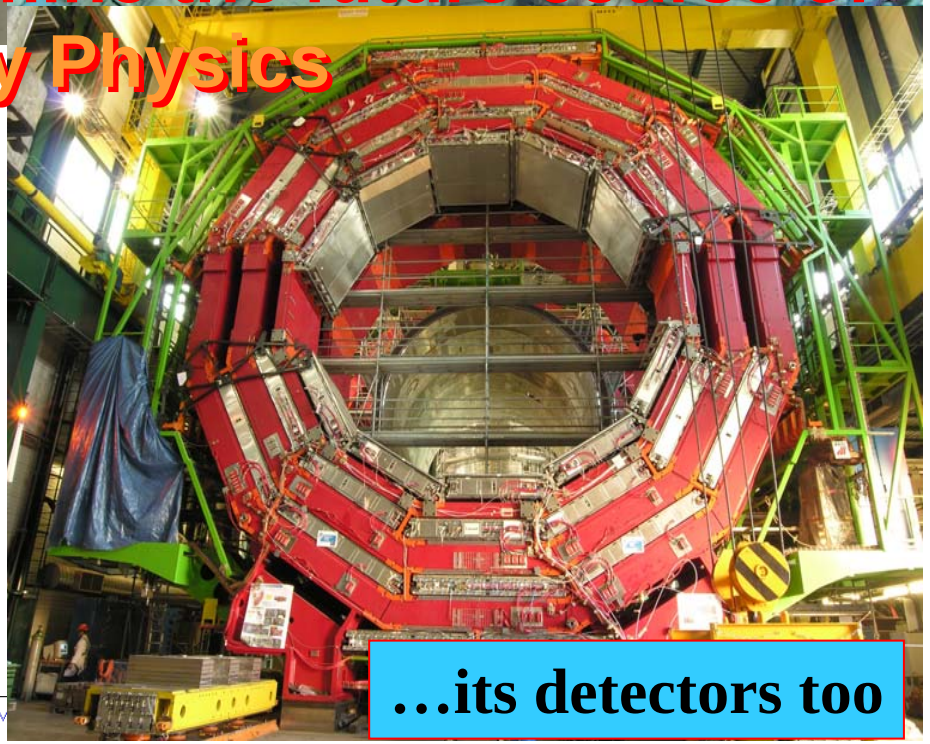
Strong effort promised by the institute ⇨ essential to make it happen

Why is this important ?

The LHC is a reality…

The LHC results will determine the future course of High Energy Physics





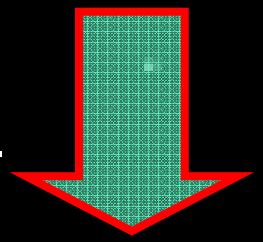
…its detectors too

The ongoing worldwide scientific programs (including the LHC)

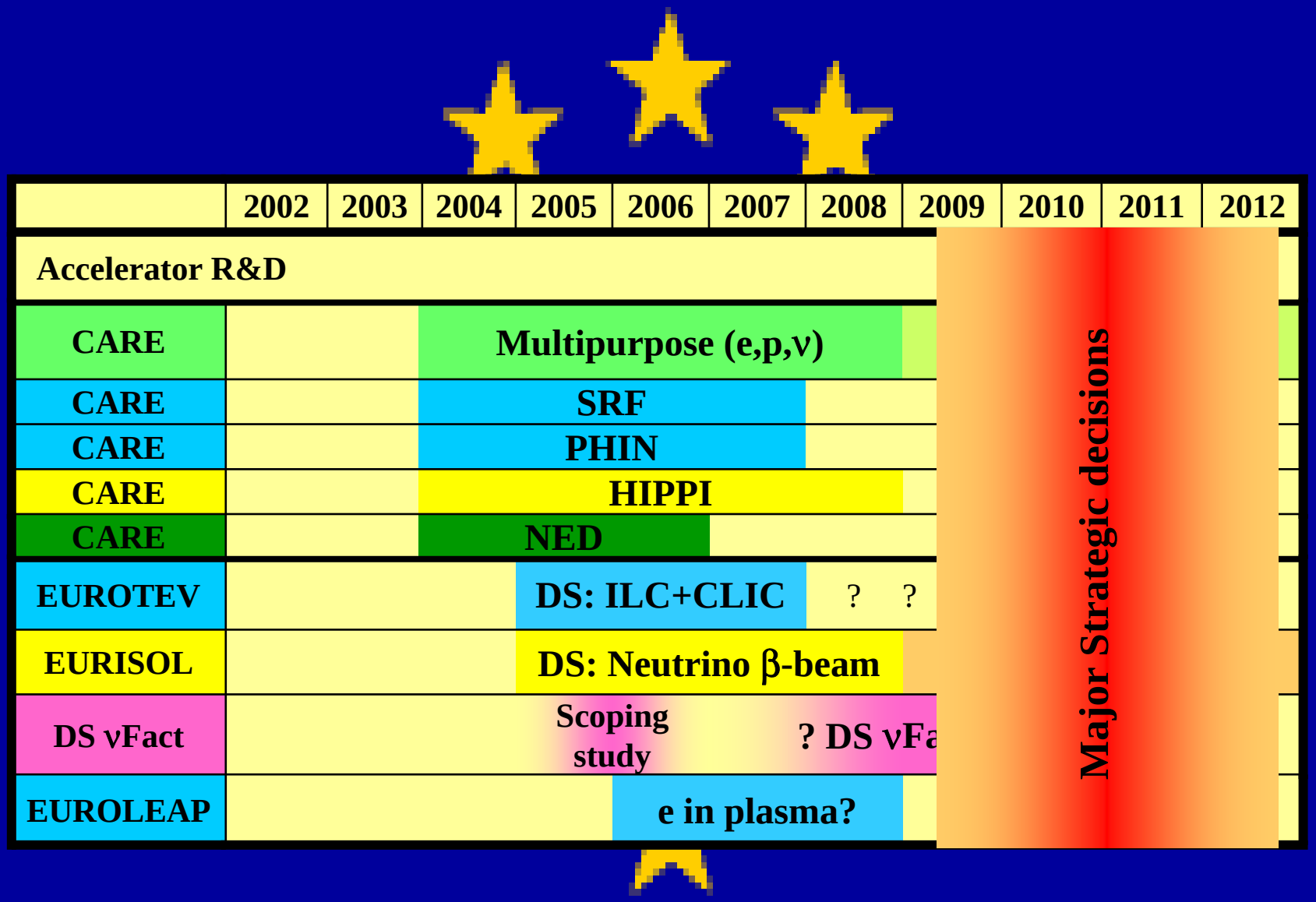
should provide the inputs leading to major decisions

around 2010

We should have as many technological options as possible available



CARE has an important role in this process and represent an important asset


2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Accelerator R&D
CARE
Multipurpose (e,p,ν)
CARE
SRF
CARE
PHIN
CARE
HIPPI
CARE
NED
EUROTEV
DS: ILC+CLIC
? ?
EURISOL
DS: Neutrino β-beam
DS νFact
Scoping study
? DS νFa
EUROLEAP
e in plasma?
Major Strategic decisions

EuroLEAP Objectives

- To build a laser-plasma accelerator
  - To accelerate electrons to the GeV energy range in a plasma wave.
  - To test the issues related to the control of the properties of the electron beam
- Expected result: accelerated e-beam with
  - energy in the energy in the GeV range,
  - energy spread of the order of 1%,
  - pulse duration of the order of 100 fs,
  - charge in the range 10 to 100 pC

11 institutes from 4 countries

back

Summary of Accelerator R&D projects

Project	Type	Beam Type	Start date	Duration Years	Total Cost	EU contribution
CARE	I3	All	1/1/04	5	55 M€	15.2 M€
EUROTeV	DS	e^+,e^- (LC)	1/1/05	3	29 M€	9 M€
EURISOL Design Study	DS	Ion, p (ν β–beam)	1/1/05	4	33 M€ (3.3 M€)	9.16 M€ (1 M€)
Total					>117 M€	33.2 M€
EuroLEAP	NEST	e Plasma acceleration	???	3	4.1 M€	2 M€

These projects are well structured, with clear objectives, deliverables and milestones. Together with the big lab activities, they represent the backbone for the HEP European accelerator R&D effort in order to play a leadership role

- **In the improvement of present accelerators**
- **In the development of new accelerators**

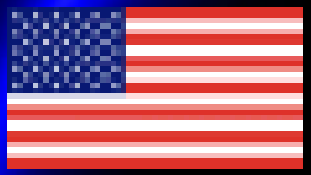
CARE
Coordinated Accelerator Research in Europe

4 new associated institutes (2 new countries) are applying to join CARE

Center for the Advancement of Natural Discoveries using Light Emission, Yerevan , Armenia

Technion – Israel Institute of Technology, Tel-Aviv, Israel

Cracow University of Technology, (Institute of Applied Mechanics), Krakow, Poland



Stanford Linear Accelerator Center, Stanford, USA

All 4 will participate to ELAN activities

CARE general information

Funding Status:

- ✓ **The 2nd advanced payment (4.928 M€) was received in May**
- ✓ **The transfer of the money to all 22 institutes is done since June**
- ✓ **In total 10 161 997 € received from the EC, covering the 30 first months out of 60**
- ✓ **So far about 12.5 M€ was spent for the first 21 months**

Work progress:

- ✓ **Progress will be shown in CARE05**
- ✓ **First and second quarterly 2005 reports have been received and are on the web**
- ✓ **Steering Committee and Dissemination Board meeting on April 5-6, September 5-6 and during CARE05**
- ❖ **Preparation of the 2005 Annual report has started**

So far no show stoppers identified and, in general, everything seems on track to achieved the objectives within the planned schedule

CARE general information

CARE papers

	Total	ELAN	BENE	HHH	SRF	PHIN	HIPPI	NED	Joint
Notes	57	32	5	2	9	2	7	0	
Pub	8				3	2	2		1
reports	32	4	4	4	4	4	4	6	2
conf	90	2	1	15	31	7	30	3	1

+ many internal documents

Many important workshops (co)organized by CARE

ex: the SPIE Congress

CARE05 meeting

Format change

- 2.5 days meeting instead of 3.5
- More plenary talks (presentations of highlights in plenary sessions)
- Welcome reception today and dinner tomorrow


C A R E

Conclusions

2nd Annual CARE meeting

The goal of this meeting is to review the progress done and prepare the work to come

Accelerator R&D is now fully part of the particle physics program in Europe

Following the pioneering example of CARE several structured R&D program have been successfully launched

But for now, I wish us a fruitful meeting showing that…

…we really do CARE for accelerator R&D